

APPARATUS AND METHOD FOR SIMULTANEOUSLY CONDUCTING  
MULTIPLE CHEMICAL REACTIONS

ABSTRACT OF THE INVENTION

A method, apparatus and kit forms a plurality of closed reaction chambers to  
5 simultaneously conduct multiple chemical reactions. The apparatus includes a plate  
of wells and an array of sets of bound chemical reactants. A well has a deformable  
closed end and an open end opposite the closed end. When assembled together, the  
array covers open ends of the wells in the plate to form a reaction assembly having a  
plurality of closed cells that is one or more of gas, liquid and/or fluid tight. The  
10 deformable closed end of the well is flexible such that a test sample is displaced  
toward a set of chemical reactants in a closed cell for mixing. The array may include  
spatially arranged prongs distally extending from a support with the sets of chemical  
reactants bound to distal ends of prongs.